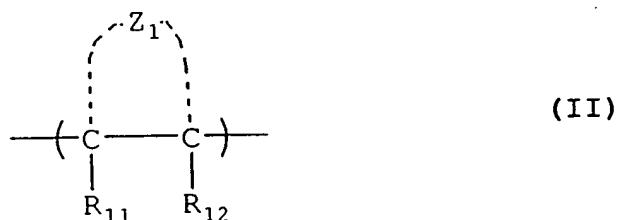
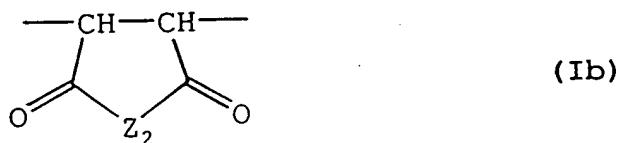


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(B) a polymer having at least either a repeating unit represented by the following formula (Ia) or a repeating unit represented by the following formula (Ib) and a repeating unit represented by the following formula (II) and having a group capable of decomposing by the action of an acid, and

(C) a compound capable of decomposing by the action of an acid to generate a sulfonic acid:



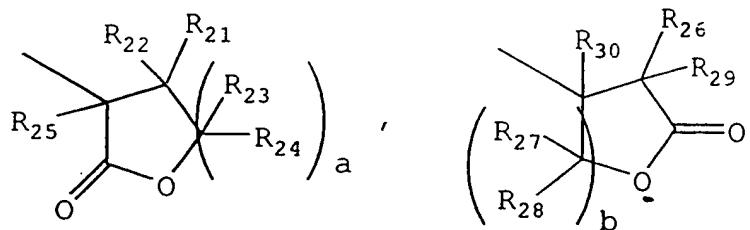
wherein

in formula (Ia), R₁ and R₂ each independently represents hydrogen atom, a cyano group, a hydroxyl group, -COOH, -COOR₅, -CO-NH-R₆, -CO-NH-SO₂-R₆ (wherein R₅ represents an alkyl group which may have a substituent, a cyclic hydrocarbon group which may have a substituent or a -Y group shown below, and

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R₆ represents an alkyl group which may have a substituent or a cyclic hydrocarbon group which may have a substituent), an alkyl group which may be substituted, an alkoxy group which may be substituted, a cyclic hydrocarbon group which may be substituted or a -Y group shown below, X represents oxygen atom, sulfur atom, -NH-, -NHSO₂- or -NHSO₂NH-, and A represents a single bond or a divalent linking group:

a
-Y group:



(wherein R₂₁ to R₃₀ each independently represents hydrogen atom or an alkyl group which may have a substituent, and a and b each represents 1 or 2);

in formula (Ib), Z₂ represents -O- or -N(R₃)- (wherein R₃ represents hydrogen atom, a hydroxyl group or -OSO₂-R₄ (wherein R₄ represents an alkyl group, a haloalkyl group, a cycloalkyl group or a camphor residue)); and

in formula (II), R₁₁ and R₁₂ each independently represents hydrogen atom, a cyano group, a halogen atom or an alkyl group which may have a substituent, and Z₁ represents an atomic group necessary for forming an alicyclic structure which

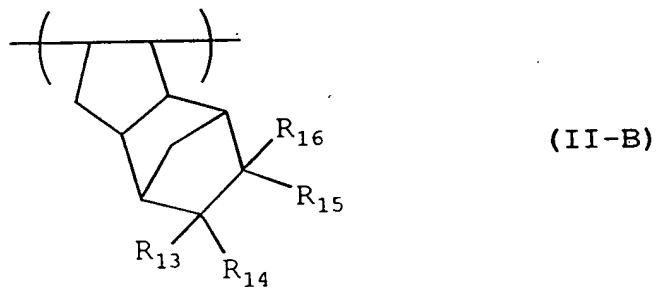
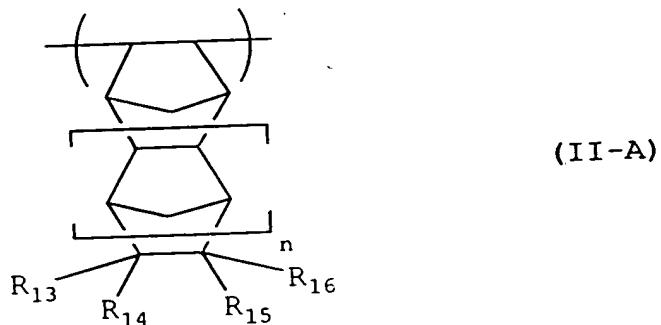
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contains two bonded carbon atoms and may have a substituent.

2 (amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 1, wherein Z₁ in formula (II) represents an atomic group necessary for forming a bridged alicyclic structure which contains two bonded carbon atoms and may have a substituent.

3 (amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 1, wherein the repeating unit represented by formula (II) is that represented by the following formula (II-A) or (II-B):



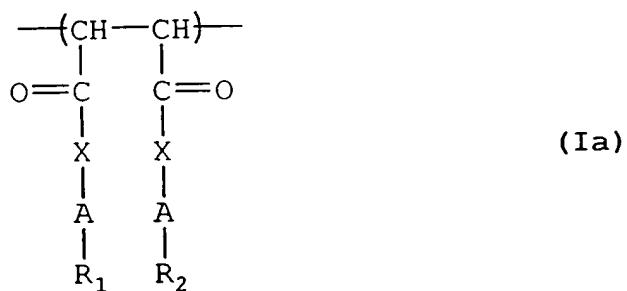
wherein R₁₃ to R₁₆ each independently represents hydrogen atom, a halogen atom, a cyano group, -COOH, -COOR₅ (wherein R₅ is as defined in claim 1), a group capable

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of decomposing by the action of an acid, -C(=O)-X-A-R₁₇ (wherein X and A are as defined in claim 1, and R₁₇ represents -COOH, -COOR₅, -CN, a hydroxyl group, an alkoxy group which may have a substituent, -CO-NH-R₆, -CO-NH-SO₂-R₆ (wherein R₅ and R₆ are as defined in claim 1) or a -Y group as defined in claim 1), an alkyl group which may have a substituent or a cyclic hydrocarbon group which may have a substituent, at least two of R₁₃ to R₁₆ may be combined to form a ring, and n represents 0 or 1.

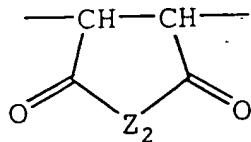
4 (amended). A positive photoresist composition for far ultraviolet exposure, comprising:

- (A) a compound capable of generating an acid by the irradiation of an actinic ray or radiation,
- (B) a polymer having at least either a repeating unit represented by the following formula (Ia) or a repeating unit represented by the following formula (Ib) and a repeating unit represented by the following formula (II) and having a group capable of decomposing by the action of an acid, and
- (D) a fluorine-type and/or silicon-type surface active agent:

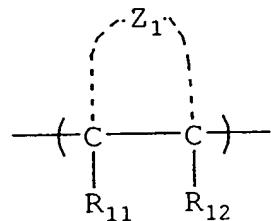


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(Ib)



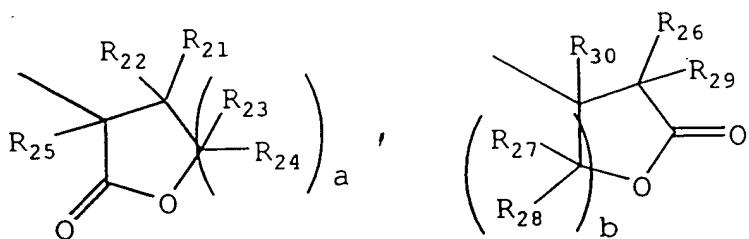
(II)

wherein

in formula (Ia), R_1 and R_2 each independently represents hydrogen atom, a cyano group, a hydroxyl group, -COOH, -COOR₅, -CO-NH-R₆, -CO-NH-SO₂-R₆ (wherein R₅ represents an alkyl group which may have a substituent, a cyclic hydrocarbon group which may have a substituent or a -Y group shown below, and R₆ represents an alkyl group which may have a substituent or a cyclic hydrocarbon group which may have a substituent), an alkyl group which may be substituted, an alkoxy group which may be substituted, a cyclic hydrocarbon group which may be substituted or a -Y group shown below, X represents oxygen atom, sulfur atom, -NH-, -NHSO₂- or -NHSO₂NH-, and A represents a single bond or a divalent linking group:

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-Y group:



(wherein R₂₁ to R₃₀ each independently represents hydrogen atom or an alkyl group which may have a substituent, and a and b each represents 1 or 2);

in formula (Ib), Z₂ represents -O- or -N(R₃)- (wherein R₃ represents hydrogen atom, a hydroxyl group or -OSO₂-R₄ (wherein R₄ represents an alkyl group, a haloalkyl group, a cycloalkyl group or a camphor residue)); and

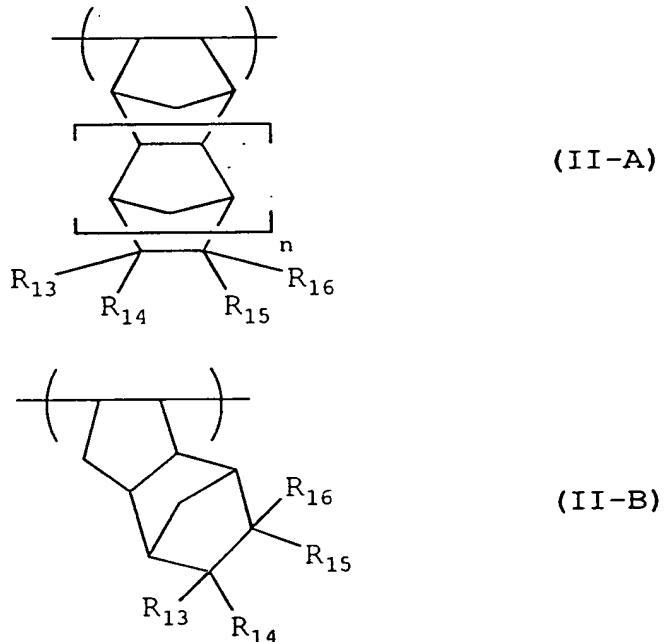
in formula (II), R₁₁ and R₁₂ each independently represents hydrogen atom, a cyano group, a halogen atom or an alkyl group which may have a substituent, and Z₁ represents an atomic group necessary for forming an alicyclic structure which contains two bonded carbon atoms and may have a substituent.

5 (amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 4, wherein Z₁ in formula (II) represents an atomic group necessary for forming a bridged alicyclic structure which contains two bonded carbon atoms and may have a substituent.

6 (amended). The positive photoresist composition for far ultraviolet

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exposure as claimed in claim 4, wherein the repeating unit represented by formula (II) is that represented by the following formula (II-A) or (II-B):



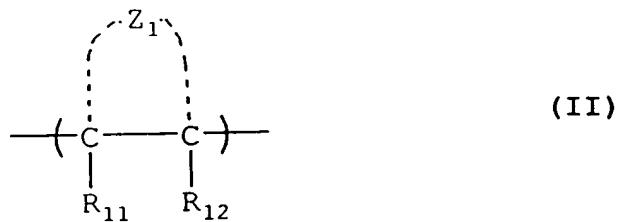
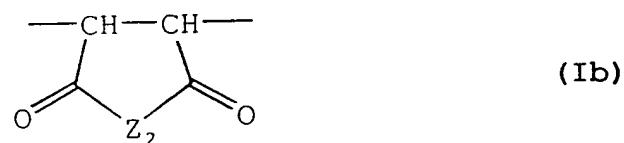
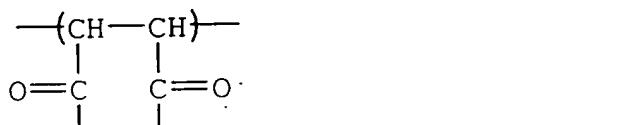
wherein R₁₃ to R₁₆ each independently represents hydrogen atom, a halogen atom, a cyano group, -COOH, -COOR₅ (wherein R₅ is as defined in claim 4), a group capable of decomposing by the action of an acid, -C(=O)-X-A-R₁₇ (wherein X and A are as defined in claim 4, and R₁₇ represents -COOR, -COOR₅, -CN, a hydroxyl group, an alkoxy group which may have a substituent, -CO-NH-R₆, -CO-NH-SO₂R₆ (wherein R₅ and R₆ are as defined in claim 4) or a -Y group as defined in claim 4), an alkyl group which may have a substituent or a cyclic hydrocarbon group which may have a substituent, at least two of R₁₃ to R₁₆ may be combined to form a ring, and n represents 0 or 1.

a 2
Sub 1 9 (amended). A positive photoresist composition for far ultraviolet exposure,

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comprising:

- (A) a compound capable of generating an acid by the irradiation of an actinic ray or radiation,
- (B) a polymer having at least either a repeating unit represented by the following formula (Ia) or a repeating unit represented by the following formula (Ib) and a repeating unit represented by the following formula (II) and having a group capable of decomposing by the action of an acid, and
- (E) a mixed solvent containing at least one selected from the group consisting of butyl acetate and propylene glycol monoalkyl ether carboxylate and at least one selected from the group consisting of ethyl lactate and propylene glycol monoalkyl ether:



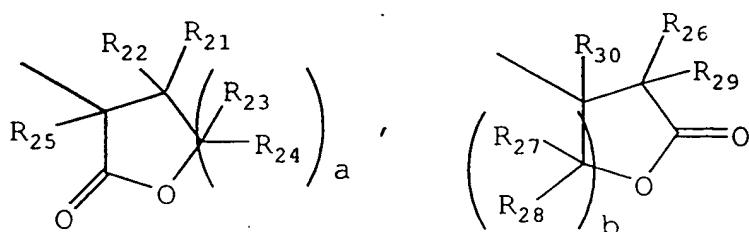
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wherein

B1 in formula (Ia), R₁ and R₂ each independently represents hydrogen atom, a cyano group, a hydroxyl group, -COOH, -COOR₅, -CO-NH-R₆, -CO-NH-SO₂-R₆ (wherein R₅ represents an alkyl group which may have a substituent, a cyclic hydrocarbon group which may have a substituent or a -Y group shown below, and R₆ represents an alkyl group which may have a substituent or a cyclic hydrocarbon group which may have a substituent), an alkyl group which may be substituted, an alkoxy group which may be substituted, a cyclic hydrocarbon group which may be substituted or a -Y group shown below, X represents oxygen atom, sulfur atom, -NH-, -NHSO₂- or -NHSO₂NH-, and A represents a single bond or a divalent linking group:

a2

-Y group:



(wherein R₂₁ to R₃₀ each independently represents hydrogen atom or an alkyl group which may have a substituent, and a and b each represents 1 or 2);

in formula (Ib) , Z₂ represents -O- or -N(R₃)- (wherein R₃ represents hydrogen atom, a hydroxyl group or -OSO₂-R₄ (wherein R₄ represents an alkyl group, a

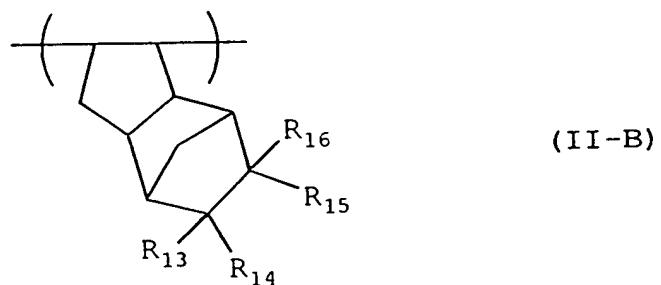
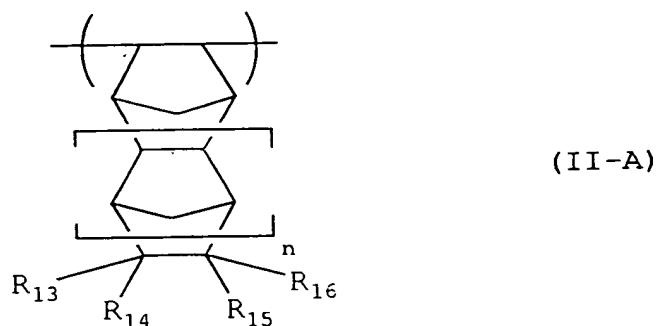
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haloalkyl group, a cycloalkyl group or a camphor residue)); and

in formula (II), R₁₁ and R₁₂ each independently represents hydrogen atom, a cyano group, a halogen atom or an alkyl group which may have a substituent, and Z₁ represents an atomic group necessary for forming an alicyclic structure which contains the two bonded carbon atoms and may have a substituent.

10 (amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 9, wherein Z₁ in formula (II) represent an atomic group necessary for forming a bridged alicyclic structure which contains two bonded carbon atoms and may have a substituent.

11 (amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 9, wherein the repeating unit represented by formula (II) is that represented by the following formula (II-A) or (II-B):



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wherein R₁₃ to R₁₆ each independently represents hydrogen atom, a halogen atom, a cyano group, -COOH, -COOR₅ (wherein R₅ is as defined in claim 9), a group capable of decomposing by the action of an acid, -C(=O)-X-A-R₁₇ (wherein X and A are as defined in claim 9, and R₁₇ represents -COOH, -COOR₅, -CN, a hydroxyl group, an alkoxy group which may have a substituent, -CO-NH-R₆, -CO-NH-SO₂-R₆ (wherein R₅ and R₆ are as defined in claim 1) or a -Y group as defined in claim 9), an alkyl group which may have a substituent or a cyclic hydrocarbon group which may have a substituent, at least two of R₁₃ to R₁₆ may be combined to form a ring, and n represents 0 or 1.
